

Exhibit A

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF NORTH CAROLINA
CHARLOTTE DIVISION**

CS TECHNOLOGY, INC. and
SITEHANDS, INC.,

Plaintiffs,

v.

HORIZON RIVER TECHNOLOGIES, LLC,

Defendant.

Case No. 3:18-cv-00273

EXPERT REPORT OF BRUCE F. WEBSTER

September 27, 2019

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1 Introduction

1. I have been asked to prepare this expert report (the “Report”) in the matter of *CS Technology, Inc. and Sitehands, Inc. vs. Horizon River Technologies, LLC*, No. 3:18-cv-00273 (the “Litigation”).
2. In this Report, I will state my qualifications, scope of review, and methodology used for my investigation. I will then present our findings.

2 Qualifications

3. My name is Bruce F. Webster. I am a Principal at Bruce F. Webster & Associates. My business address is 826 South 400 West, Provo, Utah 84601.
4. I have been professionally involved in information (computer) technology since 1974, when I began as a developer (and, subsequently, a team leader) on a university-funded research project on computer-assisted translation. In the years since, I have served as a software engineer, systems administrator, development team leader, chief software architect, vice-president of R&D, chief technical officer (CTO), and information technology consultant for a variety of companies and organizations. My areas of expertise include software engineering, software architecture and design, user interface design, quality assurance and testing, object-oriented development, IT project management and failure, software licensing, IT security, and IT intellectual property issues. I have a BS in Computer Science from Brigham Young University and did graduate work in Computer Science at the University of Houston/Clear Lake. A copy of my curriculum vitae is attached as Exhibit 1.
5. During over 40 years of software engineering, I have developed, helped develop, or otherwise contributed to a large number of internal, commercial, and corporate software projects; that is, I have personally created, modified, and analyzed large quantities of software source code in a wide variety of programming languages and environments. I have done this in fields as

diverse as defense, flight simulation, space sciences, environmental monitoring, desktop productivity, telecommunications, financial and investment services, insurance, e-commerce, and international supply chain management.

6. As a consultant I have conducted numerous reviews of existing and proposed IT systems, products, projects, and organizations; in the process, I have evaluated project management practices, project schedules and risks, hardware and software architecture, software design and implementation (including actual source code), quality assurance and testing practices, security issues, contract and licensing agreements, personnel qualifications and performance, Year 2000 compliance, and intellectual property protection.
7. I have written four books, three of which deal with issues in IT system development and project management, and one of which deals specifically with leadership and management of technology firms.¹ I also have contributed to two other books, which deal with information technology as well. These books are listed in Exhibit 1, along with all publications I have authored within the last ten (10) years.
8. As a college professor, I have been teaching a senior-level course in software engineering (CS 428), including project management and failure, at Brigham Young University since the start of 2017. I have likewise taught software design and implementation to undergraduate computer science students. I have also given numerous lectures and presentations on information technology at a variety of conferences, including on IT project management and leadership.

¹ *The Art of Ware* (M&T Books, 1995).

9. I have been qualified as an expert witness on the subject of information technology and project management both inside and outside the United States; I have testified in court or arbitration multiple times; I have filed expert reports, declarations, and affidavits, and have been deposed under oath. I have three times served as a neutral expert and once as sole arbitrator in software intellectual property disputes. Exhibit 3 contains a list of cases where I have testified as an expert at trial, hearing, or deposition in the last four (4) years.
10. In connection with this engagement, I, and individuals at my firm under my direct supervision and direction, reviewed or considered the documents, files, and references cited in Exhibit 4.
11. Bruce F. Webster & Associates is being compensated for my work and that of any associates assisting me in this engagement, based on our hourly billing rates. My current billing rate is \$350 per hour. The rate for my associate(s) is \$150 per hour. My firm's fees are not contingent upon the outcome of this matter or my conclusions herein.

3 Background

12. Below is a brief summary of my understanding of the timeline of the engagement between the parties in this Litigation, as well as discussion of financial approaches in two-party information technology (IT) projects.

3.1 BACKGROUND OF THE LITIGATION

13. HRT is a technology services company that specializes in technology solutions for clients who have geographically dispersed offices or franchises. In the summer of 2016, HRT entered into a contract with Massage Envy Franchising, LLC to update the technology infrastructure in over 1,100

Massage Envy franchise locations (“clinics”) across the United States (“Project 4”).²

14. Contemporaneously, Horizon River Technologies (“HRT”, “Defendant”) and CS Technology, Inc. (“CST” and subsequently “SITEHANDS”, collectively “Plaintiffs”) jointly executed a Master Services Agreement (the “MSA”) and an accompanying Statement of Work (the “SOW”) for CST to serve as HRT’s subcontractor on Project 4.³ The contract was later assigned by CST to SITEHANDS.

15. The MSA and SOW called for Plaintiffs to perform Project 4 (“P4”) installations of network equipment and cables at various Massage Envy franchise locations across the United States. The P4 installations were to be completed at a fixed-price charge of \$689.25, which covered all supplies, labor, and installation. The fixed fee for the P4 installations was subsequently raised to \$748.42 to cover the use of color-coded cables.⁴

16. HRT provided Plaintiffs with a detailed (3+ pages) installation checklist, including materials to bring, device and port labeling instructions, cabling instructions, and configuration instructions.⁵ HRT itself would ship ahead of time to the Massage Envy site the networking devices (firewalls, switches, access points, modem) to be cabled together and configured.

17. Project 4 work began in August 2016. Immediately, Plaintiffs struggled with installation, and so less than two weeks after providing the first checklist,

² Answer and Counterclaim, July 9, 2018, paragraphs 9 and 19.

³ Master Services Agreement, dated July 15, 2016 (HRT_0000001); Statement of Work, dated July 15, 2016 (HRT_0000010).

⁴ Answer and Counterclaim, July 9, 2018, paragraph 26.

⁵ Horizon River/Massage Envy Network Upgrade Install, dated 08/26/16 (HRT_0093516; transmitted to Plaintiffs at HRT_0093515).

HRT provided Plaintiffs with a greatly expanded (18 pages) and vastly more detailed installation checklist, complete with multiple photographs of the networking equipment showing exactly which ports were to be cabled together, maps of typical Massage Envy clinics showing where equipment should go, and detailed screenshots showing network and software configuration.⁶

18. HRT added more details to the installation checklist just a week later, nearly doubling the size (to 33 pages) and now including extremely detailed, screen-by-screen instructions on configuration of the Massage Envy servers to work with the newly installed network equipment.⁷

19. In December of 2016, due to ongoing problems with Plaintiffs' performance on the P4 installations, HRT revised the instructions yet again, taking back responsibility for certain configuration tasks from Plaintiffs and instead performing them remotely.⁸ As such, there was no real change in the scope of work for a P4 installation and thus no need to change the fixed price. Plaintiffs' personnel were to get the installation to a certain point, and then leave. Once HRT had finished all remote configuration, Plaintiffs' personnel would come back for a brief 'cutover' visit, requiring onsite time of at most 30 minutes.

20. In spite of all this, HRT continued to have serious problems with the quality and reliability of Plaintiffs' installations, receiving complaints from Massage

⁶ Horizon River/Massage Envy Network Upgrade Install, dated 09/07/16 ((HRT_00007387; transmitted to Plaintiffs at HRT_0007386).

⁷ Horizon River/Massage Envy Network Upgrade Install, dated 09/16/16 (HRT_0094968; transmitted to Plaintiffs at HRT_0094967).

⁸ Horizon River/Massage Envy Network Upgrade Install, dated 12/27/16 (HRT_0004289; transmitted to Plaintiffs at HRT_0004288).

Envy franchisees and executives.⁹ The two parties met or communicated repeatedly, attempting to resolve disputes over improper billing, lack of installation completion, and quality of services.¹⁰

21. Plaintiffs apparently stopped all work on the Massage Envy project on June 12, 2017.¹¹ Plaintiffs subsequently filed suit against HRT seeking payment for unpaid invoices.

3.2 FINANCIAL APPROACHES TO TWO-PARTY INFORMATION TECHNOLOGY PROJECTS

22. There are two general financial approaches to information technology (IT) projects: time-and-materials and fixed-price.

23. A *time-and-materials* project is one in which the vendor is paid for the time and materials expended upon the project.¹² Estimates may be given, but they are not necessarily binding (except by prior agreement). The customer is free to change the scope of the project at will, since it will pay for the work done; likewise, the customer is free to end the project at any point, though the customer is usually obligated to pay for any outstanding work.¹³ In this situation, the customer has greater financial risk but also has greater freedom with the project's direction and duration.

⁹ Cf. HRT_0000428, HRT_0002887, HRT_0004554, MEF_0002197, RCTRL0000005390, SITEHANDS_0004583.

¹⁰ Answer and Counterclaim, July 9, 2018 (Dkt. #10), paragraphs 81-92.

¹¹ Answer and Counterclaim, July 9, 2018 (Dkt. #10), paragraph 96.

¹² Cf. Classen[2016], p. 161. Classen is talking about software development and licensing, but the same principles apply across all forms of information technology projects.

¹³ The classic exception is when the customer feels that the vendor has failed to produce anything of value for the time and materials expended.

24. Under the SOW, billing for time and materials was allowed for certain custom work, including site surveys for both P4 installation and new site buildouts (see Section 5.2, below), as well as the itemized work done on new site buildouts.¹⁴

25. A *fixed-price* project is one in which the vendor offers a fixed price for a clearly specified amount of work. The vendor is usually paid according to clearly defined milestones or achievements. The vendor faces greater financial risk, but can achieve a significant profit margin if it understands the domain well, specifies the requirements thoroughly, and uses qualified, competent personnel to carry out the work. As one authority states:

A fixed price offers the [vendor] a greater opportunity for profit because the [vendor] bears a greater share of performance risk, in exchange for a higher profit opportunity. At the same time, if the [vendor] significantly underestimates the scope of work, its losses could be significant.¹⁵

26. Because it is a fixed-price contract, the vendor has to come up with a bid that it can live with. That means the bid must not only cover all of the vendor's estimated costs – for both personnel and equipment – but the bid must also have a healthy margin, not just for profit, but to cover any performance issues with its own personnel or contractors. The more detailed and explicit the work requirements are, the easier it should be for the consultant to calculate a profitable bid.

¹⁴ SOW, Pricing Schedule C, pp. 5-7.

¹⁵ Classen[2016], p. 162. In fact, site-by-site fixed network installations such as Plaintiffs were carrying out are vastly easier to estimate than typical software projects, which generally require significant analysis and involve constantly changing requirements.

27. If the vendor discovers in the course of the project that it has underestimated its own costs or ability to perform in carrying out the fixed-price tasks, it has three choices short of breaching its commitments:

- Withdraw from the agreement, subject to whatever contractual penalties or consequences there might be.
- Renegotiate or amend the agreement to adjust the fixed price upwards.
- Take the loss.

28. Because of the potential financial consequences of any of those choices, the vendor should be very careful in putting together a fixed-price bid and err towards charging too much, rather than too little.

29. In this particular matter, it is clear from the SOW and subsequent materials that Plaintiffs agreed to perform P4 installation work at a fixed price. This would be an expected and typical approach given the highly repetitive, constrained, and identical nature of the work across hundreds of Massage Envy clinics. But, as noted above, it was incumbent upon Plaintiffs to ensure that they could complete P4 installations across most of the United States at or below the agreed-upon fixed price, or to accept working at a loss.

30. Best practices for profitable fixed-price work such as this should include:

- Technicians conducting site surveys in advance to uncover any issues or roadblocks. Note that the SOW allowed for such site surveys to be billed on a time-and-materials basis, above and apart from the P4 fixed price.¹⁶
- Technicians calling the site in advance on the planned day of work to ensure the site is available and open, and that any equipment being drop-shipped to the site has, in fact, arrived.
- Technicians bringing all necessary equipment, tools, and supplies to the site on the planned day of work, based on the site survey and/or advance phone calls.

¹⁶ SOW, Pricing Schedule C, p. 5.

- Ensuring the technicians doing the work are qualified, experienced, and professional, and that they have the skills to rapidly complete the work, troubleshoot issues that might arrive, and escalate true roadblocks quickly.
- Where possible, using successful and efficient technicians over and over again, so that they develop even greater implementation and troubleshooting skills.

31. Failure to adhere to these and similar practices brings a significant risk of long, drawn-out installations, possibly spanning multiple days and visits, wiping out any potential profits and incurring losses on each visit.

4 Scope and Methodology of This Report

32. The purpose of this Report is to provide expert analysis and opinions regarding Plaintiffs' management of the project and related billing. My focus, from a technical point of view, is whether the time spent and fees charged by Plaintiffs appear to be consistent with standard industry practices and justified by the work performed.

33. At the same time, I have reviewed Plaintiffs' invoicing records for charges and work that did not appear to be justifiable or reasonable in the context of the work being done.

34. I reviewed documentation produced by HRT relevant to these installations, including the Master Services Agreement,¹⁷ the Statement of Work,¹⁸ and the chronological sequence of Site Install instructions.¹⁹

¹⁷ Master Services Agreement, dated July 15, 2016 (HRT_0000001).

¹⁸ Statement of Work, dated July 15, 2016 (HRT_0000010).

¹⁹ The installation checklists and the relevant emails transmitting them to Plaintiffs may be found at: HRT_0093515, HRT_0093516, HRT_0007386, HRT_0007387, HRT_0094531, HRT_0094544, HRT_0094697, HRT_9994698, HRT_0095073, HRT_0004288, HRT_0004289, SITEHANDS_0004819, SUTEHANDS_0004820, HRT_0021102.

35. I also requested and was able to make an on-site visit to an operating Massage Envy franchise to view an actual installation and a typical physical setting for it.²⁰
36. I requested and received the actual equipment typically sent for installation, then cabled the devices together according to the Site Install instructions.²¹
37. In the context of the analysis above, my firm carried out an extensive review of the invoice data in this matter. I was provided a set of twelve (12) Microsoft Excel spreadsheets that were represented to me as invoices that Plaintiffs submitted to HRT from August 2016 through May 2017.²² To reduce my own workload, the same data was provided to me in the form of a Excel spreadsheet that is a composite of Plaintiffs' invoices (the "Composite Invoice Spreadsheet").²³ In my report, for ease of reference, I will cite to the Composite Invoice Spreadsheet rather than each unique invoice.
38. In this review, I looked at the work being done, the hours and/or amounts being billed, and the notes and related information provided by Plaintiffs accompanying each invoice.
39. Specifically, my firm analyzed the first 50% (731 out of 1465) of the invoice line items produced by Plaintiffs. This represents (at least) 353 different

²⁰ Visit to Massage Envy in Draper, Utah, on August 22, 2019, by Bruce F. Webster and associate.

²¹ This was done in our offices, not in a functioning Massage Envy setting, so there was no actual connection to the internet or to a local server.

²² HRME August 2016 Tickets – original invoice.xlsx, HRME August 2016 Tickets.xlsx, HRME September 2016 Tickets.xlsx, HRME October 2016 Tickets.xlsx, November 2016 CS Invoice.xlsx, HRME December 2016 Tickets.xlsx, HRME January 2017 Tickets.xlsx, HRME February 2017 Tickets - REV.xlsx, HRME March 2017 Tickets.xlsx, HRMS April 2017 Tickets.xlsx, HRME May 2017 Tickets.xlsx, HRME June 2017 Tickets.xlsx

²³ COMBINED CST INV w Unique ID.xlsx

clinics.²⁴ Since the spreadsheet was sorted by HRT Clinic number, this sample is distributed both geographically (across the nation) and temporally (for the period of the engagement between Defendant and Plaintiffs). The sample is internally complete, that is, there is no partial examination of a given site.

5 Findings and Opinions

40. In this section, when I refer to work performed by “Plaintiffs,” I am including both the actual Plaintiffs (CST and SITEHANDS) as well as the various subcontractors that Plaintiffs engaged to carry out this work at Massage Envy sites.

5.1 THE ORIGINAL P4 FIXED-PRICE AGREEMENT WAS REASONABLE AND ACHIEVABLE FROM A TECHNICAL STANDPOINT

41. The July 15, 2016 Statement of Work (“SOW”) signed by Plaintiffs and HRT sets forth a fixed price schedule (Pricing Schedule A) for a ‘Project 4 WAP/Network Implementation’ (“P4”) installation -- totaling \$689.25 (before taxes).²⁵ This included \$200 for patch cords and cables, \$330 for installation (5.5 hours at \$60/hour), and \$159.25 (1.3 hours) for “Project Oversight: Scheduling, Coordination, Real-time Validation.” As noted above, this amount was subsequently increased to \$748.42 to cover the use of color-coded cables.

42. Pricing Schedule B provided a monthly Support Contract charge of \$9.09 per month for each Massage Envy branch with a completed P4 installation.²⁶ This

²⁴ The first 46 line items are labeled as ‘0000’ rather than by HRT Clinic Number but do represent different geographical locations of Massage Envy clinics.

²⁵ SOW, Pricing Schedule A, p. 4.

²⁶ SOW, Pricing Schedule B, pp. 4-5.

would be allocated in terms of service hours at a rate of \$101/hour.²⁷ Thus, were the projected 1,136 Massage Envy branches all to go live with P4 installations, Plaintiffs would provide 100 hours of support each month with a monthly support charge of \$10,327.27.

43. Also as noted earlier, Pricing Schedule C in the SOW provided for pricing for “ad hoc consulting” and “MAC [move, add, change] work.”²⁸ This included itemized labor charges and anticipated equipment for new site buildout work.

44. My first finding is that the P4 installation, given the extensive documentation provided by HRT (particularly starting with the September 7, 2016 checklist) and the skill level promised by Plaintiffs in the Scope of Work and other business communications, is straightforward, simple, and – absent a significant roadblock – would normally be completed by a qualified technician in a single visit, if proper procedures and practices (noted earlier) had, in fact, been followed.

45. I base this finding on examination at our offices of the equipment to be installed; an actual visit to an Massage Envy location; review of the increasingly detailed and accommodating installation checklists HRT provided to Plaintiffs (ultimately over 30 pages long and filled with detailed photographs, diagrams, and screen shots); and my firm’s own experience in network installation and administration.

46. The SOW allows for site surveys in advance of P4 installation on a time-and-materials basis at \$70/hour (during business hours) or \$105/hour (during non-

²⁷ The SOW gives a sample calculation that with 200 finished P4 installations, Plaintiffs would bill HRT \$1818.00 and that HRT would be given 18 hours of services for that fee – thus \$101.00/hour.

²⁸ SOW, Pricing Schedule C, pp. 5-7.

business hours).²⁹ However, my examination of Plaintiffs' invoices show that this was seldom done.

47. Even assuming the CST technician did not do a site survey in advance or even just call the site manager to find out basic information, the 5.5 hours provides abundant time to complete the required P4 tasks, including:

- Mounting shelves or MDF board for equipment, if necessary. (60 minutes or less)
- Placing equipment on shelves or mounting it on the MDF board. (45 minutes or less)
- Wiring network equipment together. (15 minutes or less)
- Placing access points in ceiling and connecting with cables. If necessary, pull second cable to connect to server. (Roughly 2 to 3 hours, depending upon difficulty, obstacles, and access to specific rooms; however, technician can charge extra for high/hard ceiling)
- Calling NOC for password, Remote Desktop to server, NIC teaming, connecting redundant server NIC to firewall. (30 minutes typically)
Note that this whole step was taken over by HRT when they shifted to a two-visit installation process.

48. So, a typically P4 installation should take about 5.5 hours of actual work. A well-qualified technician would come in under this time, particularly with any form of pre-assessment of the site.

49. Independent confirmation of our assessment comes from HRT documents regarding P4 installation done either by independent contractors (different than those use by Plaintiffs) or by HRT itself. HRT records for eleven (11) P4 installs from 2018 and 2019 show an average cost (labor + equipment) of \$622.³⁰ An outside contractor that HRT used for other sites, Nationwide Tech Solutions ("NTS"), charged \$800 (tax included) for its P4 installs, which –

²⁹ SOW, Pricing Schedule C, p. 5.

³⁰ Self-performed ME work cost (Field Nation).xlsx.

like Plaintiffs' later installs – were broken into two visits.³¹ This was not because the work required it, but because Plaintiffs' contractors consistently lacked the technical skills to successfully complete the cutover work, and so HRT took over that work remotely.

5.2 NEW SITE BUILDOUTS WERE INTENDED TO BE BILLED ON A TIME-AND-MATERIALS BASIS, NOT AT A FIXED-PRICE

50. In addition to P4 installations, Plaintiffs also provided services to new Massage Envy clinics as they were being built, specifically, roughing in and terminating the network cabling used by the IT equipment.³²

51. The SOW contains an entry in its Pricing Schedule C for “New Site Buildout” with a fee of \$11,465 per site.³³ However, subsequent entries in the same pricing schedule show labor rates and expected equipment for new site buildouts and related work. When I have discussed this with HRT personnel, they have characterized the \$11,465 fee as a rack-rate for such new site buildouts, not a fixed-price amount.

52. This characterization is supported by contemporaneous documents:

- In a July 11, 2016, email exchange between Chris Harrison (CTO at HRT) and Rob Carbone (CST), they discuss adjusting the ‘rate card for a new site’ with a goal of lowering costs.³⁴
- In an August 30, 2016, email exchange between Spencer Stockley (CST) and Scott McDermott (HRT), Stockley refers to the \$11,465 as an “initial SWAG number” and says that CST will prepare “bespoke

³¹ Invoice_40093_from_Nationwide_Tech_Solutions_Inc.pdf, Invoice_50032_from_Nationwide_Tech_Solutions_Inc[1][1].pdf, NTS_50035_RCTRL0000072790.001.pdf, NTS_50036_RCTRL0000072792.001.pdf, NTS_50042_RCTRL0000003870.001.pdf.

³² Answer and Counterclaim, July 9, 2018, paragraph 11.

³³ SOW, Pricing Schedule C, p. 5.

³⁴ HRT_0023466.

[custom] quotes” based on the full construction prints that will “likely be lower.”³⁵

53. Furthermore, this characterization is borne out by the new site buildout documents I reviewed. Those documents – listed in chronological order in Exhibit 5 – show that Plaintiffs consistently provided itemized quotes to HRT for new site buildouts that were, in fact, far less than the \$11,465 amount, typically ranging from about \$4000 to just over \$9000. These documents followed a standard format, listing on a line-by-line quoted basis, the labor and equipment required, with the total cost being the sum of the individual items. Most of these contained text that explicitly referred to themselves as “quotes” or “proposals.” There was no indication that they were invoices; some explicitly indicated that “the final invoiced price will reflect actual installed materials and hours worked.”³⁶
54. My analysis of the 50 new site buildout quotes show that 31 of the 32 quotes provided by Plaintiffs to HRT prior to April 26, 2017, were itemized, with sums ranging from \$4,428.00 to \$9,460.92. Eleven (11) of those quotes included the P4 fixed fee as part of the quote total, meaning that the new site buildout work was actually several hundred dollars less than the total quoted.
55. Just one of these 32 quotes, dated November 25, 2016, was not itemized and simply cited a fee of \$11,465.³⁷ This one site became an issue in April 2017. The Massage Envy manager had asked for an itemized invoice for the \$11,465 charge; it appears that Plaintiffs did eventually provide one, but that it cited charges for work that Plaintiffs had not, in fact, performed. Scott McDermott (HRT) noted this in his response to Mike Murphy (CST):

³⁵ HRT_0000048. “SWAG” is a well-known engineering term, the acronym standing for “silly wild-ass guess,” that is, a very rough and likely inaccurate estimate.

³⁶ Cf. HRT_0116678.

³⁷ SITEHANDS_0096859.

But did you actually do the Toshiba installation, provide a UPS battery backup for the server, install a demark extension?

I'm pretty sure the answer to all of those questions is 'no,' and the owner of this clinic owns a couple of others and was very on top of everything I'd hate to send an invoice that itemizes work that wasn't actually done.

My first impression would be that you shouldn't be trying to match the \$11,465 number. You should send us an invoice for actual work done, and if it is less than \$11,465, credit us the difference if we've already paid. As I mentioned before, we've had this discussion with Rob and Spence, and they agreed they would do that.³⁸

56. In spite of that direction from HRT, Plaintiffs' approach to new site buildouts abruptly and significantly changed on April 26, 2017. On that day alone, Plaintiffs provided six (6) new un-itemized quotes for new site buildouts, each for \$11,465. On May 3-4, 2017, Plaintiffs provided a similar batch of eight (8) un-itemized quotes for new site buildouts, again, all at \$11,465. Thus, in the space of a little over a week, Plaintiffs had provided fourteen (14) new site buildout quotes for \$11,465 – totaling \$160,510 – all lacking any detail or justification for the amount being quoted, and all citing a fixed total amount much greater than any prior itemized quote.

57. Even so, three (3) of the 28 quotes that Plaintiffs submitted from April 26, 2017 through May 25, 2017, were still itemized, with amounts of \$7,362.50, \$8,265.50, and \$7,812.50.³⁹

58. Furthermore, on an internal (CST) email dated May 7, 2017, Mike Murphy stated his intent to “make whole all of the past new build[s] we did not bill the whole \$11,465.”⁴⁰

³⁸ Email from Scott McDermott to Michael Murphy, 4/21/2017 (HRT_0148656).

³⁹ HRT_0027883, HRT_0107594, HRT_0001101.

⁴⁰ SITEHANDS_0009603.

59. In short, the documentary history makes it clear that HRT and Plaintiffs both understood from the start of their engagement that new site buildouts were to be quoted and performed on a time-and-materials basis, and that the abrupt shift by Plaintiffs towards a fixed-price approach in April 2017 was unilateral and not approved by HRT.

5.3 CST EXCEEDED THE P4 FIXED PRICE 95% OF THE TIME

60. Of the 353 P4 site installations examined, Plaintiffs billed extra hours for 336 of them, or 95%. Only 17 (5%) of the 353 P4 site installations were completed and charged at the fixed-rate price.

61. The overcharging for P4 installations is consistent throughout the entire engagement, from August 2016 through June 2017.

62. Some of this overcharging (above and beyond the contractual fixed price) occurred at the 353 initial visits, but Plaintiffs required 249 additional visits beyond those to complete the work.

63. Given Plaintiffs' 95% rate of exceeding the fixed price, and given that the time estimates built into the contractual fixed price were, in fact, reasonable, we are left with several possibilities, not necessarily mutually exclusive:

- Plaintiffs overestimated the qualifications of the people it hired or contracted to do the actual installations and then continued to use such people throughout the duration of the engagement.
- Plaintiffs sought to fraudulently inflate its billings – either to increase profits or avoid losing money – by billing extra for work that either was unjustified, that should have been included within the P4 fixed price, or that was a duplicate of work already billed. In several instances CST appears to have abandoned incomplete P4 installations even though it billed (at least) the full fixed price for the P4 installation.
- Notwithstanding the terms of the parties' agreement, Plaintiffs consistently billed additional P4 work on a time-and-materials basis *in addition to* charging the fixed price, even though that extra work was in most cases work that should have been covered by the fixed price.

64. In short, Plaintiffs failed utterly to adhere to the fixed price schedule set forth in the SOW. Rather than use the P4 fee as a *maximum* charge – the essential nature of a fixed price agreement – Plaintiffs consistently used the P4 fee as the *minimum* charge and, as noted above, added additional charges to completing the P4 work for 95% of the Massage Envy clinics.

5.4 CST’S OWN INVOICES SHOW CONSISTENT EVIDENCE OF INCOMPETENCE, PADDING, AND/OR DISHONESTY

65. Close analysis of Plaintiffs’ invoices shows repeated evidence of, at least, incompetence and ineffective work by Plaintiffs’ contractors, leading to excessive hours for a straightforward installation. However, the frequency, manner, and documentation of the overbilling implies intentional action by Plaintiffs to inflate P4 billings.

66. In the 353 P4 installs reviewed, we found (at least) 47 invoices billing amounts that does not appear to be justified by the work described in the invoice. Exhibit 6 lists these 47 invoices. Generally speaking, there are several patterns of Plaintiffs’ actions that emerge from these invoices.

- First, the invoices show that a complete P4 installation was almost never completed within the 5.5 hours set for the SOW; instead, excess hours were billed in spite of the fixed-price agreement, and multiple visits were often required to complete the P4.
- Second, the completion of P4 work was frequently done by billing against HRT’s General Support hours, presumably to sidestep the fixed-price limit or hide the excess work required. The pricing schedules in the SOW contemplated Plaintiffs would need to perform less than one general support hour, per clinic, per year. This was a reasonable assumption.
- Third, excess hours were often billed for relatively simple tasks, such as six to eight hours to pull one or two networking cables, or two hours to reboot a DVR.

67. Likewise, in the 353 P4 installs reviewed, we found six (6) sites where duplicate invoices were issued by Plaintiffs for the same P4 install. Exhibit 7 lists these invoices.

68. We also found 23 invoices (out of the 353) where the hours billed appear to exceed the hours indicated in the technician notes (e.g., from arrival to departure). For example, in an invoice dated 09/23/16 (Corbin Cabrera at site #0075), the notes indicated Cabrera arrived at 3:30 pm and finished work at 8:30 pm – just 5 hours – and yet the invoice bills for 19 hours *plus* the P4 fixed fee, and there were still two more invoices covering the P4 installation work at the same site.

69. Egregious examples of Plaintiffs' improper and potentially deceptive billing practices include, but are not limited to:

- Billing travel time as labor;
- Billing two hours to reboot a DVR;
- Billing six hours to run a single cable;
- Billing two hours to plug in a loose cord;
- Billing ten hours to install two switches.

70. The frequency and consistency at which Plaintiffs overbilled HRT makes it improbable, in my experience, that the foregoing overcharges all resulted from mere mistake.

5.5 CST APPARENTLY MADE USE OF INSUFFICIENTLY QUALIFIED TECHNICIANS DESPITE REPRESENTATIONS TO THE CONTRARY

71. It is difficult at this remove to determine which installations and support visits had excess hours due to deliberate mis-categorization or padded billings, and which were due to incompetence on the part of the technician(s) provided by CST.

72. What is telling, though, is that CST made some direct, firm commitments regarding the technical skills and specific training of the technicians it would send out for the promised work.

73. The SOW states:

2.2 CST agrees to ensure all technicians have been and will continue to be properly trained to support Client's IT Infrastructure, including training on the use of test equipment.⁴¹

74. The SOW goes on to define the qualifications for Level 1 and Level 2 Technicians:

- Level 1: Basic Cabling tasks, works with assistance of NOC/Bridge to configure devices and troubleshoot issues.
- Level 2: Same as [Level 1] but can work independent of NOC/Bridge to configure devices and/or troubleshoot issues for any devices. Technician has the ability to work on pc's, servers, and network gear.⁴²

75. Shortly after HRT and Plaintiffs signed the MSA and SOW, Jef Wallace, CEO of HRT, wrote an email to Spencer Stockley, CEO of CST, asking "How do you qualify subcontractors to make sure they can do the work?" Mr. Stockley replied:

We employ a "Strategic Sourcing Team" that is actively engaged in the subcontractor management 365/24/7; this team works directly with Operations and Business Management to add, remove, shift, subcontractors based on current/forecasted demand

We utilize FBI background checks and photo/fingerprinting (which includes full local background checks and credit reviews) through Fieldprint to ensure the technicians are independently qualified to perform work on behalf of our firm at customer sites

We required (at both the subcontractor and individual technician level) copies of all "Skills" and "Certifications" documentation

⁴¹ SOW, p. 2.

⁴² SOW, p. 5.

loaded into ATLAS and flagged with expiration dates; these are audited frequently and updated on/before expiration dates

We validate “Skills” or “Certifications” with the certifying entity regularly (CommScope for example)

We review feedback (good and bad) on each technician daily and penalize accordingly

We write specific contract language around compliance with “Skills” and “Certifications” in all our agreements which are paired with fierce penalties for any breach or violation

We remove underperforming technicians and/or entire subcontractors if they do not meet any of our program requirements (skills, feedback, SLA’s, system compliance, bespoke customer standards requirements, etc.)⁴³

76. In spite of those assertions, the picture that emerges from the technicians’ own notes in the invoices, as well as the hours and multiple visits billed by Plaintiffs for just about every task, demonstrates either a lack of requisite skills on the part of many of the technicians or some significant dishonesty in the hours billed for the actual work completed, or both.

77. This is confirmed, as noted above, by the actual hours and amounts billed by other subcontractors, as well as the time and cost for HRT itself, in carrying out exactly the same work and set of tasks.

78. Plaintiffs were themselves aware of the problems with both qualifications and quality of work from their contractors, not to mention professionalism and reliability, as documented by some of their internal emails and text messaging. Note that these are just excerpts, and several of Plaintiffs’ own documents cited go on at greater length about problems, issues, and dissatisfaction:

- [02/10/17] The new technician onsite, Jean Paul, sent me pictures of the current state of the network equipment and terminations. After reviewing the pictures, I am at a loss for words. This is completely unacceptable. I would like your feedback on how we would like to

⁴³ Email from Spencer Stockley to Jef Wallace and Chris Harrison, 08/19/2016, 3:20:32 PM (UTC).

proceed with Orion in the future. My suggestion is that we DO NOT pay anything for the work that was done by the original tech Jason Welter (not my call to make).⁴⁴

- [02/13/17] I had to hold the tech's hand through the entire install – truthfully, it would have been better to send me out there and do it myself. Tech onsite had ZERO basic cabling skills. ...when I called him and told him “Jean, no zip ties on CAT 6!!” he replied with “What’s CAT 6?” ... this tech lacked basic cable management skills...⁴⁵
- [02/16/17] Just one more reason that Orion is on my Shit list....And for future dispatches [I hope]...they send a qualified tech ... It honestly pains me to look at that picture, but like I said I truly think this is the best he could do...⁴⁶
- [02/21/17] This is becoming comical now.
Another Orion debacle, we now have missing drops.
I refuse to use them at any new builds if this is the quality of work they are promising.
Greg, they need to get out there ASAP and again – at no charge to us.⁴⁷
- [02/22/17] It has come to my attention that the scope of work was left in completed [sic] on this work order. We will need Orion to ensure that they can get a Tech go back to complete the work that we were told was completed already. We are placed in a bad position when we are told the work is completed and then we are blindsided that it is not. I will need to know today once you secure a competent resource to complete this job.⁴⁸
- [03/21/17] Please note that going forward we can no longer have two technicians dispatched for a P4 install as part of the ME project, unless the techs are going to complete the scope of work in half the time. The hours being billed to date have reached a tipping point with the client and compared to other vendors Coranet is sticking out. Over the

⁴⁴ SITEHANDS_0010024, email from Zachary Stevens to Lisa Cusmano, 02/10/2017.

⁴⁵ SITEHANDS_0010024, email from Zachary Stevens to Michael Murphy, 02/13/2017.

⁴⁶ SITEHANDS_0021428, email from Zachary Stevens to Lisa Cusmano. 02/16/2017.

⁴⁷ SITEHANDS_0005499, email from Lisa Cusmano to Michael Murphy and others, 02/21/2017.

⁴⁸ SITEHANDS_0005611, email from Greg Protonentis (CST) to Al Way, Christ Liversidge (Orion), 02/22/2017.

last 50 days an average P4 install is taking Coranet 18.5 hours, where other vendors are closer to 10 hours.⁴⁹

- [03/21/17] We found a significant issue in San Pedro. The cables run are not CAT6 they are in fact CAT5E. This is a huge mistake by our technicians.⁵⁰
- [03/24/17] I am completely flabbergasted that 2 techs ran 4 cables in 7.5 hours and have the **audacity** to show up late the following day **fully knowing** that this was schedule for completion **YESTERDAY** (and the FZ wanting to leave is no excuse as they were onsite for 7 hours). We have 4 other vendors that have been pushed back because of this mess.

The original tech ran CAT5E, our CAT6 cable is gone, the techs are completely unprofessional, I was told by your team that it would have been completely yesterday and I keep getting the run-around as to what is happening here.

Zak and I are client facing – and we are the ones who have to bear the brunt of this.⁵¹

- [04/25/17] Yes... This is getting old. They keep sending inexperienced techs. **THIS IS A NEW SITE. THERE IS NO REASON FOR SLOPPY WORK!**⁵²
- [04/25/17] I'm just afraid of who we send now that I know our vendors are giving us inexperienced techs.⁵³
- [04/26/17] Our tech will do what he can but Coranet needs to get back onsite and fix their cabling work. I will not let Edgar from USIS be held responsible for their sloppy cabling that will fil inspection... This is absolutely unacceptable.⁵⁴

⁴⁹ SITEHANDS_0060770, email from Michael Murphy to Peter Spears and Mike Procopio, 03/21/2017.

⁵⁰ HRT_0030754, email from Lisa Cusmano to Angie Christopherson (Massage Envy), 03/21/2017.

⁵¹ HRT_0035010, email from Lisa Cusmano to Spencer Stockley and others, 03/24/2017. Emphasis in original.

⁵² HRT_0108058, email from Zachary Stevens to Lisa Cusmano, 04/25/2017.

⁵³ HRT_0028833, email from Zachary Stevens to Lisa Cusmano, 04/25/2017.

⁵⁴ HRT_0028918, email from Zachary Stevens to Lisa Cusmano, 04/26/2017.

- [05/13/17] I cannot use Orion here with the amount of eyes that are going to be on this. This FZ is going to be over the tech's shoulder the entire time they're onsite.⁵⁵
- [05/24/17] *Stevens, Zachary [10:29 AM]*
 ...He's a good tech.. unlike the Technimove glunks. They were literally like children
 Everything looks great but we're not paying that time. I straight up told him that the typical install is 10 hours at the very most for 1 tech
Cusmano, Lisa [10:36 AM]:
 10 hours is max
 no more free rides
 they take 2 days they get paid for 10 hours
 done
 i am done with these vendors
 they all need to be schooled⁵⁶

79. Plaintiffs' own internal acknowledgements of the recurring problems with its contractors are matched by strong complaints from the Message Envy clinics themselves. One example is this email dating to November 2016:

I would like to chime in on behalf of the Las Vegas region and add that we have had constant problems and incredibly poor service with most of our dealings with Horizon River over the past months.

The individual clinics can give you more specifics, but in addition to Barry's concerns below, there are several other owner groups in town who have experienced the following issues:

- The technician – Tim – not showing up as promised or extremely late or leaving very early. WE have to call, text or email to find out what is going on.
- Not completing the work – none of the clinics he's worked at are 100% finished.
- No one else can come out when he's not available – he's the ONLY one working on this project in our region of 12 clinics.

⁵⁵ HRT_0027211, email from Zachary Stevens to Lisa Cusmano, 05/13/2017. Note that CST is still using Orion three (3) months after threatening to drop them for incompetence.

⁵⁶ SITEHANDS_0013565, email from Lisa Cusmano to Zachary Stevens, 05/24/2017.

- He fixes one problem while creating others.
- Constantly on the phone for games, personal reasons and because he can't fix the issues and is calling for help. ...
- We've had to utilize our Message Envy Help Desk (or outside IT vendor) because he couldn't get the systems up and running.
- Clinics have been down for hours if not a full day, at a time, with no warning.
- Lack of communication on when to expect a technician and what's needed in preparation [sic] for his arrival (i.e., floor plans).

I can provide many more examples, but right now, it's safe to say that probably 5-8 clinics are incomplete in one way or another with the service that was already paid for weeks ago, and we do not know when they will be at 100%.

Sadly, this has been, and continues to be a very poor experience.⁵⁷

80. As another example, a different Message Envy franchisee wrote this on December 20, 2016:

On 11/19, a tech from Horizon River arrived at our location at 8am for our wireless access points (WAP)installation...According to the emailed communication received prior, the appointment was expected to take 5 hours. Ours took 10 hours. During that 10 hours, the tech took our server off-line 3 times leaving us no access to the internet or Central Office, he was rude, and acknowledged that "we were his guinea pig" and that he's never done this before. Before this tech's arrival, all of our printers, cameras and networked components were working fine, however, after he left, we were not able to print to networked printers, our credit card readers were not communicating with our workstations, and we lost our ability to monitor our security cameras.⁵⁸

81. Another, from April of 2017:

⁵⁷ HRT_0053790, email from Jill Peters (Message Envy) to Behz Akhund (HRT) and others, 11/18/2016.

⁵⁸ HRT_0053551, email from Doug Dillenburg (Message Envy) to John Choi (Message Envy), 12/20/2016.

When the technician arrived, he looked very disheveled – hair was a mess, pants were sagged half way down, zipper undone and shirt sticking out of it. He came in and said he was with Horizon River to do our install and I introduced myself. He asked if I “even had all the stuff for him to do the install?” I let him know that the email that I received said that we were supposed to have 3 packages and I did in fact have three. He started opening them was like well maybe you are supposed to have more because I don’t see everything in here. He kept digging in the box and eventually found everything. He then let me know that he didn’t even know if he could do the install because he didn’t have a work ticket for me and “luckily we were only 20 minutes from his house.” I let him know that they were the ones that set up the installation and he said, “Well I could make a couple calls to see what I can figure out.” He sat in the lobby and called a few people and eventually said that he was going to do the job without a work ticket and would call them back to let them know that everything was installed so hopefully they would just create a work ticket.

He got started, coming up a few times to ask questions or talk on the phone. At one point, he came up front talking on the phone semi-loudly and went out to his car to talk on the phone for approximately 5 minutes and then paced up and down our front sidewalk still talking on the phone. While he was on the phone, he pulled his pants and underpants up right in front of the door. He even spit in his hands and rubbed them together, possibly to clean them, and then came back in to continue working. While working, he would whistle while walking down the hallway, talk on the phone, etc. to the point that I had two customer complaints during one hour that they could hear him during their [massage] sessions.

Horizon River, it’s [sic] employees and sub contractors when they enter a Massage Envy location represent our brand. As such, I would expect them to have the same professionalism that we would hold any of our employees to. I would appreciate not sending this technician to any of my other locations....⁵⁹

82. And another, this in May of 2017:

Gary was the name [the installer] gave when he checked in with the front.

⁵⁹ HRT_0045194, email from Matt Roberts (Massage Envy) to Project 4 (Massage Envy), 04/21/2017.

- 3 ceiling entry panels were broken I've attached the photos of those entry areas. There are not simple ceiling tiles, but are part of the "fire corridor". The broken tile will no longer pass a fire marshal inspection.
- Gary left the breakroom, tranquility room (back tranquility by the server closet), and the server closet a complete mess.
- He left all of his boxes and any other trash that he accumulated during the day in the back for my staff to clean up.
- He was talking to clients while he was working in the lobby area, even while my FDA's were trying to pitch memberships.
- He was being awkward with the LMT's and Esty's in the breakroom, asking if he could get a quick massage, etc.
- My FDA Grayson had to ask him 2 times to get off his phone headset [while] he was working in the server closet because they could hear his phone conversations all the way in the front. (These conversations did not have to do with installing the equipment in our location)⁶⁰

83. Many other such emails exist, all with the common themes of unqualified (and sometimes unprofessional) technicians, excess hours spent, poor or incomplete work, and serious impact on the operations of the Massage Envy clinics themselves and likely on HRT's reputation.⁶¹

84. Given the range of dates on these various communications, it is clear that Plaintiffs knew of these problems and issues through the entire course of their engagement with HRT and yet never resolved them.

⁶⁰ HRT_0095280, email from 'janna' (Massage Envy) to Stephanie McGovern (Massage Envy) and others, 05/13/2017.

⁶¹ HRT_0148920, HRT_0005623, HRT_0019798, HRT_0020005, HRT_0103287, HRT_0015251, HRT_0015306, HRT_0021084, HRT_0095256, HRT_0145975; see also MEF_0002197, HRT_0095233, SITEHANDS_0004583, HRT_0000482, HRT_0004554, HRT_0002887, HRT_0034204, HRT_0102828, HRT_0088554.

85. Instead, the frequency and consistency at which Plaintiffs overbilled HRT makes it improbable, in my experience, that the foregoing overcharges all resulted from technician incompetence without at least some knowledge and cover-up from Plaintiffs themselves. In my opinion, from an industry point of view they amount to a material failure by Plaintiffs to honor their performance, quality, and pricing commitments to HRT on the Project.

6 Conclusions

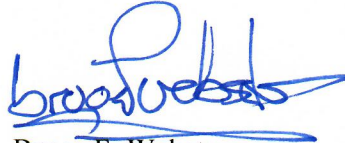
86. In sum, my analysis of documents and invoices in this matter lead me to the following expert opinions:

- Plaintiffs (including their subcontractors) consistently performed well below industry standard and expectations in doing the P4 site installations at Massage Envy franchise.
- This remained true in spite of HRT's increasing effort to make the installation instructions extremely detailed and to remove some of the actual configuration work from Plaintiffs.
- Plaintiffs' own invoices show consistent evidence of incompetence, padding, and/or dishonesty. Specifically, in 95% of the P4 installations carried out, Plaintiffs failed to stay within the agreed-upon fixed price and instead billed extra time and materials, usually with little or no justification.
- The new site buildout work was understood by both HRT and Plaintiffs to be quoted and billed on a time-and-materials basis for actual work done. Plaintiffs abruptly changed their quoting and billing to a fixed-price basis very late in the engagement – at the end of April 2017 – and internally expressed their intent to go back and retroactively bill additional amounts for completed work.
- The extensive billing irregularities and actual tech notes in the invoices produced by Plaintiffs suggest a conscious pattern of padding invoices, overcharging for the work actually performed, and charging multiple times for the same tasks.
- From an industry point of view, Plaintiffs failed to meet their pricing, performance, and quality commitments to HRT for this project.

87. I reserve the right to amend, revise, or supplement my opinions as our research continues and as additional discovery or other information becomes

available, including without limitation expert reports and depositions. I also reserve the right to respond to any reports or testimony by Plaintiffs' experts.

Signed this 27th day of September 2019,



Bruce F. Webster

Provo, Utah

Exhibit 1: Curriculum Vitae of Bruce F. Webster

Education

- ***Graduate work in Computer Science, University of Houston Clear Lake (1980-81).*** Completed graduate classes in advanced pattern recognition, numerical methods, synthesis of logic systems with 4.0 GPA.
- ***B.S. in Computer Science, Brigham Young University (1978).*** Spent two years doing missionary work in Central America. Minored in languages and linguistics; became fluent in Spanish; studied Chinese, ancient Greek. Awarded "Highest Honors" and "University Scholar" designations at graduation.

Professional and Business Experience

- ***Adjunct Professor, Computer Science, Brigham Young University (2017 – present).*** Teaching senior-level course (CS 428) on real-world software engineering and product development.
- ***Principal, Webster & Associates LLC (2001 - present).*** Conducting international practice as IT consultant (organizational and project management, systems architecture, intellectual property, security) and as expert witness in IT-related matters, including IT project failure, intellectual property (copyright, trade secrets, and source code analysis), IT security, IT contract and licensing practices, IT consulting practices, Web technologies, software engineering. Have written expert reports, provided testimony via affidavit, and testified in federal court, state court, arbitration, and deposition. Have served three times as a neutral expert and once as an arbitrator in IT-related disputes.
- ***Director, PricewaterhouseCoopers LLP (1999-01).*** Built up nationally-recognized practice in IT-related litigation support. Published white paper and articles, co-chaired conference on systems failure litigation. Performed architecture & project reviews for PwC e-commerce joint ventures. Recruited and managed staff.
- ***Chief Technical Officer, Object Systems Group (1996-99).*** Consulted with Fortune 1000 clients in IT project management, Year 2000 project management and contingency planning, risk assessment, object technology, project architecture, quality assurance. Performed project and technical reviews; made recommendations and helped rescue projects. Hired and managed consultants at multiple sites. Traveled to establish new accounts and strengthen existing ones.

- ***Independent Consultant (1995-96).*** Served as Chief Software Architect (consulting basis) for transportation communications firm; brought in to rescue OO-based network management development effort for Motorola's IRIDIUM global telecommunications project, resulting in on-schedule delivery of NM software. Assessed and upgraded developers' OO/C++ skills; developed general OO software development process. Organized and managed architecture and class design team for TMN-based implementation of network management software for next-generation telecommunications backbone.
- ***Co-Founder/Chief Technical Officer, Pages Software Inc (1990-95).*** Built R&D/engineering division from scratch, hiring engineers, office manager, system administrator, director of quality. Helped raise \$3M in initial venture funding (\$7M total). Did original object-oriented architecture and GUI prototyping for groundbreaking desktop publishing software for UNIX workstations. Served as chief architect, leading product specification, object analysis, design, and development. Shipped multiple versions of DTP package and supporting products. Co-authored business plans; made visits with CEO to potential customers, partners, and investors. Involved in development effort for commercial Web editing tools (Windows, C++); attended WebWorld conferences; participated in HTML standards mailing list.
- ***Independent Consultant (1984-90).*** Did consulting in software engineering, object-oriented programming, commercial product development, industry and technology analysis, product evaluation, technical writing, technical support.
- ***Guest Instructor, Computer Science Department, Brigham Young University (1985-87).*** Taught BYU computer science department classes on introduction to programming, assembly language, data structures & algorithms, computers & society.
- ***Consulting Editor/Columnist, BYTE Magazine (1984-87).*** Placed on monthly retainer by *BYTE* to write articles on software and hardware technology. Authored influential and highly rated column ("According to Webster") containing industry analysis, technical exposition, hardware and software reviews.
- ***Vice-President, R&D, Oasis Systems (1982-84).*** Helped build highly successful word processing utility start-up; contributed to market-leading spell check package; adapted for commercial word processors. Started up and ran entertainment software division; was co-designer and chief developer of award-winning entertainment software. Managed programmers; performed marketing.
- ***Chief Programmer/Analyst, Monitor Labs (1981-82).*** Developed firmware for new products (environmental monitoring devices); fixed bugs, extended functionality in existing products; managed computing facilities for engineering division, including selection and acquisition of new systems.

- ***Scientific Programmer/Analyst, Lunar and Planetary Institute (1980-81)***. Worked with space scientists to apply computer technology to research efforts, including geological simulations and analysis of data from space probes.
- ***Systems Engineer, Singer/Link Simulations (1979-80)***. Debugged and enhanced software for the Space Shuttle flight simulators at NASA/JSC.
- ***Associate Software Engineer, General Dynamics/WDCS (1978-79)***. Provided software development for various aerospace engineering projects, including pattern recognition and classification in radar signatures, cruise missile and large space structure simulations.
- ***Programmer/Team Leader, BYU Translation Sciences Institute (1974-78)***. Developed software for computer-assisted language translation project; served as team leader for Chinese Synthesis team.

Professional Affiliations

- Senior Member, Association of Computing Machinery (ACM)
- Member, Institute of Electrical and Electronic Engineering (IEEE) Computer Society
- Member, Information Systems and Audit Control Association (ISACA)
- Associate Member, American Bar Association (ABA)

Books

- *The Y2K Survival Guide: Getting To, Getting Through, and Getting Past the Year 2000 Problem*, Prentice Hall PTR (Upper Saddle River, NJ, 1999).
- *The Art of 'Ware*, M&T Books (New York, 1995).
- *Pitfalls of Object Oriented Development*, M&T Books (New York, 1995).
- *Microsoft Press Computer Dictionary* (contributor), Microsoft Press (Redmond, WA, 1991).
- *The Way Things Work: Computers* (contributor), Time-Life Books (Richmond, VA, 1990).
- *The NeXT Book*, Addison-Wesley (Reading, MA, 1989).

Publications since 2008

- Online columnist, *Baseline* (<http://www.baselinemag.com>), 2008 to 2009.

Exhibit 2: Curriculum Vitae of Aaron Vivian

Education

- *B.S. in Information Systems, Utah Valley University (2011).*

Professional and Business Experience

- **Information Technology Lab Manager, Brigham Young University (2012 – present).** Manage hardware and software in student labs including but not limited to computers and supporting network infrastructure, spectrum analyzers, oscilloscopes, power supplies, function generators, metallic and optical TDRs. Purchase, design, build, maintain, and upgrade networking infrastructure for the IT Program. Purchase, design, build, maintain, and upgrade networking infrastructure for the IT Program. Created and maintain computer imaging solution based on FOG. Coached Senior Capstone teams of 4-5 IT Department students over a two semester project; includes mentoring on project management concepts and scheduling, understanding and managing scope, risk discovery and mitigation, and meetings and communication with the project sponsor. Manage and mentor student Systems Administrators in establishing and maintaining systems within the IT infrastructure. Teach or aid in teaching specific labs in numerous classes and provide mentoring to individual students as needed.
- **Information Technology Manager, Rocky Mountain University of Health Professionals (2011-2012).** Developed and implement a networking strategy including all needed subnets, VLANs, firewall zones and associated traffic flow rules, and wireless virtual access points. Developed annual budget including all telecommunications and other technology needs. Developed and implemented a plan to redesign and migrate from the Citrix Xen hypervisor to VMware ESX and update the physical server infrastructure for the University. Established relationships with hardware vendors for acquisition of equipment. Implemented Microsoft Key Management System (KMS) system for Windows 7 and Office 2010 licensing. Developed desktop computer aging and replacement schedule.
- **Senior Systems Administrator/System Administrator, DirectPointe Inc. (2008-2010).** Focus and specialization in server management for about 30 client companies. Mentoring and training junior technicians. Providing on-call support for graveyard technicians. Writing and publishing internal knowledge base content. Provided full support for clients software and hardware issues through telephone and online chat sessions, managing cases through a ticketing system. Managed MRTG monitoring system responding to alerts for connectivity and other hardware related issues.

Exhibit 3: Testimony of Bruce F. Webster since 2015

Case	Jurisdiction	Nature of Engagement	Testimony
List Interactive v. Knights of Columbus (Trade Secret)	US District Court District of Colorado	Retained as expert in matter involving claims of misappropriation of software trade secrets	Testified at trial.
Stefano Grossi v. Fereidoun “Fred” Khalil (Intellectual Property)	Superior Court of Fulton County State of Georgia	Retained as expert in matter involving claims of non-literal copying of source code from one language to another.	Deposed; testified at trial.
American Railcar Industries, Inc. v. GyanSys, Inc. (IT systems failure)	US District Court Southern District of New York	Retained as project management expert in contract dispute over terminated ERP (SAP) implementation.	Deposed; testified at trial.
StorageCraft Technology v. Persistent Telecom Solutions (Software copyright)	US District Court District of Utah	Retained as expert witness in intellectual property case involving file backup software.	Deposed.
GoDaddy.Com, LLC v. RPost Communications Ltd., et al. (Patent)	US District Court for the District of Arizona	Retained as expert witness in patent infringement case involving e-mail marketing and tracking software.	Deposed.
Cheridy Roeger v. North Eastern Services Inc. et al. (IT data analysis)	Fourth District Court, In and For Utah County, State of Utah	Retained as expert to provide analysis of Google location data archives in wrongful termination dispute.	Deposed.
HealthNow New York Inc. v. Meridian Technologies, Inc. et al. (Disputed IT Project)	State of New York County Court: Court of Erie	Retained as project management expert in contract dispute regarding claims management applications.	Deposed.
The Robert Larson Automotive Group v. A Plus LLC and James Byrne (Disputed IT Project)	Superior Court of the State of Washington in and for the County of Pierce	Retained as project management expert in dispute over contract IT maintenance work for a set of auto dealerships.	Deposed.
Intellectual Ventures I & II v. Symantec Corp. (Patent)	US District Court for the District of Delaware	Retained as expert witness in patent infringement case involving data mirroring and application monitoring.	Deposed multiple times.
Planet Bingo , LLC et al. v. VKGS, LLC. (Intellectual Property)	State of Michigan in the Circuit Court for the County of Ingham	Retained by the Court as neutral expert in dispute over alleged misappropriation of confidential information for development of casino operations software.	Served as neutral expert to the Court; deposed by both sides.

Exhibit 4: Materials Reviewed or Considered

Pleadings and Filings

- Answer and Counterclaim, July 9, 2018.

Documents (starting Bates number for multi-page documents)

- As cited in footnotes and exhibits.
- HRT_0000116, HRT_0000226, HRT_0000326, HRT_0000565, HRT_0000941, HRT_0000943, HRT_0000992, HRT_0001099, HRT_0001101, HRT_0001140, HRT_0001414, HRT_0001978, HRT_0002951, HRT_0003313, HRT_0003386, HRT_0003447, HRT_0003568, HRT_0004033, HRT_0005058, HRT_0005079, HRT_0005198, HRT_0005329, HRT_0005507, HRT_0005507 , HRT_0005613, HRT_000623, HRT_0006555, HRT_0007029, HRT_0007526, HRT_0009353, HRT_0010226, HRT_0011543, HRT_0012015, HRT_0012015 , HRT_0013135, HRT_0013594, HRT_0013747, HRT_0014404, HRT_0014807, HRT_0015175, HRT_0015340, HRT_0015340 , HRT_0015341, HRT_0016156 , HRT_0016513, HRT_0016540, HRT_0016543, HRT_0018056, HRT_0020069, HRT_0021303, HRT_0021306, HRT_0021523, HRT_0023190, HRT_0024813, HRT_0025200, HRT_0026191, HRT_0026926, HRT_0027881, HRT_0027883, HRT_0029980 , HRT_0030372 , HRT_0030374 , HRT_0030754, HRT_0031378, HRT_0031773 , HRT_0032688, HRT_0032691, HRT_0032879, HRT_0032881, HRT_0032881 , HRT_0032884, HRT_0033125, HRT_0033203, HRT_0033203 , HRT_0033725, HRT_0033742, HRT_0033794, HRT_0033879, HRT_0033950, HRT_0034193, HRT_0034245, HRT_0034379, HRT_0035134, HRT_0040460, HRT_0040837 , HRT_0040864 , HRT_0043221, HRT_0044512, HRT_0044512 , HRT_0044518, HRT_0044521, HRT_0044522, HRT_0044523, HRT_0044525, HRT_0044527, HRT_0044530, HRT_0044531, HRT_0044532, HRT_0044533, HRT_0045828, HRT_0050168, HRT_0052879, HRT_006372, HRT_0092731 , HRT_0094225, HRT_0094256, HRT_0095765 , HRT_0099363, HRT_0099774, HRT_0103242, HRT_0104188, HRT_0107196, HRT_0107199, HRT_0107583, HRT_0107594, HRT_0108441, HRT_0108458, HRT_0108739, HRT_0108741, HRT_0109367 , HRT_0109930 , HRT_0110122, HRT_0110477, HRT_0110595, HRT_0110657, HRT_0110796, HRT_0114078 , HRT_0114452, HRT_0116676, HRT_0117685, HRT_0118016, HRT_0118346, HRT_0118346 , HRT_0119694, HRT_0119733, HRT_0119741, HRT_0119748, HRT_0119748 , HRT_0119750, HRT_0119750 , HRT_0120524, HRT_0120908, HRT_0122939 , HRT_0123061, HRT_0123127, HRT_0135731, HRT_0146393 , HRT_0146812, HRT_0146960, HRT_0147137 , HRT_0147138 , HRT_0148638, HRT_0148743, HRT_0148763 , HRT_0154921, HRT_0155366, HRT_0155539, HRT_0155539 , HRT_0155545, HRT_0155545 , HRT_0156336, HRT_0156342, HRT_0156344, HRT_0156344 , HRT_0156440, HRT_0157415, HRT_0157417
- MEF_0002170, MEF_0002189
- RCTRL0000091400
- SITEHANDS_0000006, SITEHANDS_0000022, SITEHANDS_0000348, SITEHANDS_0000469, SITEHANDS_0000470, SITEHANDS_0000471,

SITEHANDS_0001196, SITEHANDS_0004686, SITEHANDS_0004819, SITEHANDS_0008202, SITEHANDS_0010000, SITEHANDS_0010442, SITEHANDS_0013567, SITEHANDS_0017619, SITEHANDS_0017622, SITEHANDS_0018687, SITEHANDS_0019400, SITEHANDS_0040486, SITEHANDS_0040487, SITEHANDS_0041429, SITEHANDS_0041437, SITEHANDS_0046342, SITEHANDS_0046542, SITEHANDS_0049266, SITEHANDS_0060770, SITEHANDS_0063150, SITEHANDS_0063153, SITEHANDS_0064276, SITEHANDS_0065201, SITEHANDS_0071699, SITEHANDS_0071728, SITEHANDS_0075602, SITEHANDS_0076399, SITEHANDS_0077222, SITEHANDS_0077381, SITEHANDS_0079912, SITEHANDS_0079913, SITEHANDS_0089157, SITEHANDS_0094001, SITEHANDS_0095744, SITEHANDS_0096366, SITEHANDS_0096858, SITEHANDS_0096859, SITEHANDS_0097151, SITEHANDS_0077222, SITEHANDS_0000349, SITEHANDS_0078145

- SITEHANDS_ATLAS_0000002

Documents without Bates numbers (file names)

- HRME August 2016 Tickets – original invoice.xlsx, HRME August 2016 Tickets.xlsx, HRME September 2016 Tickets.xlsx, HRME October 2016 Tickets.xlsx, November 2016 CS Invoice.xlsx, HRME December 2016 Tickets.xlsx, HRME January 2017 Tickets.xlsx, HRME February 2017 Tickets -REV.xlsx, HRME March 2017 Tickets.xlsx, HRMS April 2017 Tickets.xlsx, HRME May 2017 Tickets.xlsx, HRME June 2017 Tickets.xlsx
- COMBINED CST INV w Unique ID.xlsx
- Invoice_40093_from_Nationwide_Tech_Solutions_Inc.pdf
- Invoice_50032_from_Nationwide_Tech_Solutions_Inc[1][1].pdf
- NTS_50035_RCTRL0000072790.001.pdf
- NTS_50036_RCTRL0000072792.001.pdf
- NTS_50042_RCTRL0000003870.001.pdf
- Self-performed ME work cost (Field Nation).xlsx

External References Reviewed, Considered, or Cited

- Classen, H. Ward. *A Practical Guide to Software Licensing* (6th ed.). ABA Business Law Section, 2016.

Exhibit 5: New Site Buildout Invoices

The following table lists the fifty (50) new site buildout invoices I found in the documents reviewed. (This table ignores HRT_0148765, which is dated after Plaintiffs stopped work on the project.)

BATES	Clinic	Date	Quote	Notes
HRT_0094256	1314	08/31/16	6068.00	
HRT_0110480	1250	09/09/16	4458.00	
HRT_0148640	1306	09/12/16	6968.00	
HRT_0110789	1086	09/14/16	6028.00	
HRT_0110658	1013	09/16/16	4428.00	
HRT_0110604	0413	09/19/16	5332.00	
HRT_0116678	1278	09/26/16	4774.00	
SITEHANDS_0096859	1246	11/25/16	11465.00	
HRT_0032883	0459	12/20/16	8560.92	Includes P4 fixed fee
HRT_0012017	1320	01/26/17	9460.92	Includes P4 fixed fee
HRT_0026192	0335	01/30/17	8560.92	Includes P4 fixed fee
HRT_0040487	1226	01/30/17	9010.92	Includes P4 fixed fee
HRT_0092735	1318	01/30/17	8110.92	Includes P4 fixed fee
HRT_0114079	1206	02/08/17	8110.92	Includes P4 fixed fee
HRT_0033204	0198	02/16/17	9010.92	Includes P4 fixed fee
HRT_0033205	0845	02/16/17	8560.92	Includes P4 fixed fee
HRT_0033206	1305	02/16/17	8110.92	Includes P4 fixed fee
HRT_0032884	0221	02/20/17	8560.92	Includes P4 fixed fee
HRT_0032885	1210	02/20/17	6760.92	Includes P4 fixed fee
HRT_0032880	1335	02/20/17	8262.50	
HRT_0032882	1336	02/20/17	8560.92	Includes P4 fixed fee
HRT_0030374	1316	03/03/17	7362.50	
HRT_0016158	0296	03/08/17	6912.50	
HRT_0032691	1312	03/08/17	8262.50	
HRT_0031775	1327	03/08/17	8262.50	
HRT_0015341	0463	03/13/17	7812.50	
HRT_0015341	0493	03/13/17	7812.50	
HRT_0016543	1137	03/16/17	8232.50	
HRT_0109369	0772	04/06/17	6912.50	
HRT_0108458	1065	04/14/17	7362.50	
HRT_0108741	1279	04/14/17	7812.50	
HRT_0157417	1331	04/21/17	7812.50	
HRT_0044529	0865	04/26/17	11465.00	
HRT_0044533	1154	04/26/17	11465.00	
HRT_0044531	1155	04/26/17	11465.00	
HRT_0044515	1179	04/26/17	11465.00	
HRT_0044527	1205	04/26/17	11465.00	
HRT_0044532	1307	04/26/17	11465.00	
HRT_0044518	1044	05/03/17	11465.00	
HRT_0027883	1304	05/03/17	7362.50	
HRT_0044530	1322	05/03/17	11465.00	
HRT_0044528	0485	05/04/17	11465.00	
HRT_0044519	1291	05/04/17	11465.00	
HRT_0044525	1292	05/04/17	11465.00	
HRT_0044523	1294	05/04/17	11465.00	
HRT_0044522	1309	05/04/17	11465.00	
HRT_0044520	1321	05/04/17	11465.00	
HRT_0044521	1333	05/04/17	11465.00	
HRT_0107594	1062	05/15/17	8262.50	
HRT_0001101	1054	05/25/17	7812.50	

Exhibit 6: Questionable/Suspicious Billings

The following table captures invoices that bill for amounts that appear to be in excess of the actual work done, billed to the wrong code (e.g., General Support when finishing a P4 installation), or otherwise appears unjustified. Note that this is based on a representative sampling of 50% of the invoices submitted by CST to HRT.

HRT #	Start	Tech	TASK	Analysis
0006	08/30/16	Cabrera	WAP install	Full P4 billed but no work done; P4 billed again elsewhere
0020	09/16/16	Cabrera	Gen support	P4 continuation; notes indicate 3 hours but 8 hours billed
0370	10/06/16	Cabrera	Gen support	P4 continuation; billed 8 hours for 1-hour task (configure modem)
F	10/18/16	Tuter	Dev install	10 hours (overtime) to install 2 switches
0436	11/03/16	Robinson	WAP install	P4 install + 22 hours, yet 3 additional follow-up and billed visits
0029	11/14/16	Foose	WAP install	P4 install + 23 hours + 3 additional follow-up visits
0522	11/14/16	Robinson	WAP install	P4 install + 33 hours (incorrect/faulty modem)
0372	11/15/16	Sy	WAP install	P4 install: takes two days, 29.5 hours
0029	12/22/16	Foose	Break/fix	P4 continuation; 10 hours to 'fix' networking issue
J-0146	12/27/16	Robinson	Gen support	Billed as 'new build (9752.00), but only 16.25 hours and just 4 APs
B	02/01/17	Murphy	New build	No details except "Billing purposes" (5705.24)
0101	02/13/17	Brumbach	P4 install	22 hours; all "problems" within P4 task list
0415	02/17/17	Sy	P4 install	Tech spent 6 hours "waiting to hear back on how to proceed"
0499	03/02/17	Morel	P4 install	21.5 hours of overtime billed for install (no breakdown of actual hours)
0295	03/07/17	Brown	Gen support	P4 continuation; 2 hours billed; problem still there on next visit
0251	03/15/17	Johnson	P4 cutover	Tech refers to "serial number" that's an IP address; 12.5 hours billed; unfixed
0019	03/16/17	Gellert	P4 install	25 hours & required a second visit to correct poor cable management
D-0198	04/01/17	CST VD	New build	"billing purposes" – 8840.88 for 'cable rough in & network install'
O	04/01/17	CST VD	New build	"billing purposes" – 8359.38 for 'cable rough in & network install'
R	04/01/17	CST VD	New build	"billing purposes" – 7812.50 for 'cable rough in & network install'
S-0458	04/01/17	CST VD	New build	"billing purposes" – 10,359.00 "to retroactively arrive at \$11465"
0335	04/01/17	CST VD	New build	"billing purposes" – bill to get the site up to \$11456.48
0081	04/04/17	Rycroft	Gen support	Billed 2 hours to reboot DVR (5 minutes)
0156	04/05/17	Robinson	Gen support	Billed 2.75 hours for ~30 minutes of work
0081	04/10/17	Rycroft	Gen support	P4 continuation; didn't need to reschedule/shut down to switch a cable
0417	04/11/17	Sy	Gen support	Prework should have been done prior to visit (ditto for follow-up visit)
B	04/12/17	Izu	Gen support	2 hours to plug in a loose cord (5 minutes)
S-0458	04/12/17	Vazquez	New build	16 hours of overtime logged (but not billed) for 2 patch cables

HRT #	Start	Tech	TASK	Analysis
L	04/13/17	Farina	Gen support	Billed 12 hours at \$125/hr for about 2 hours of actual work
0417	04/17/17	Sy	Gen support	Pework still not done, still billed 2.5 hours
C	04/19/17	Alongi	Gen support	No hours logged; 6987.50 billed; documentation sketchy
0055	04/24/17	Pham	Gen support	P4 continuation; bills 5 hours to plug in 6 ft cable
0458	04/27/17	Vazquez	Gen support	Billed 8 hours for two cable pulls (and elsewhere did 'new build' billing)
0364	04/27/17	Case	Break/fix	Likely unfinished P4 (server not connected to firewall)
0422	04/27/17	Rodgers	Gen support	Unfinished P4; tech didn't know enough to connect server to firewall
1318	04/28/17	Castellanos	Gen support	Billed 8 hours for two cable pulls
0296	05/01/17	Murphy	New build	"billing purposes" – 6912.50 for 'cable rough & network install'
1318	05/01/17	Castellanos	Gen support	Billed 6 hours to move a computer from front desk to break room
0463	05/04/17	Lerno	New build	P4 continuation (8.5 hrs, overtime), with two more separate visits
0036	05/05/17	Faina	Gen support	P4 continuation; 7.5 hours @ \$155/hr to pull two cables
0064	05/08/17	Wangia	Gen support	P4 continuation; tech rescheduled but was responsible for bringing cables
0064	05/15/17	Wangia	Gen support	P4 continuation; 1 hour billed but install not completed
0027	05/16/17	Wangia	Gen support	P4 continuation; billed 3.25 hours for ~30 minutes of work
0129	05/17/17	Jorgenson	Gen support	P4 continuation; tech came w/out cable, billed 2 hours, did nothing
0129	05/18/17	Jorgenson	Gen support	P4 continuation; 6 hours to run a single cable
0463	05/22/17	Murphy	New build	"billing purposes" – 7812.50, yet P4 install on 05/04/17
0221	05/31/17	Murphy	New build	"billing purposes" – 7812.50 after 4 prior P4 visits billed under Gen support

NOTE: HRT attempted to match known Massage Envy clinics with the address on the invoices submitted to it by Plaintiffs. In some cases, it could not, either because the clinic had since closed or because the address recorded by Plaintiffs (or their subcontractors) did not match a known clinic. In such cases, the clinic was given a unique one-letter identifier (A, B, etc.). In a few cases, the clinic number was later discovered (hence, S-0458).

Exhibit 7: Duplicate P4 Invoices

The following table captures duplicate P4 invoices for six (6) different sites. Note that these entries are derived from the actual invoices produced by Plaintiffs, and not from quotes or proposals.

HRT #	Start	GCS ID	TASK	P4 CHARGE	INVOICE TOTAL
0006	08/30/16	426136MEN-21	WAP install	\$748.42	\$888.42
0006	09/15/16	426436MEN-63	WAP install	\$748.42	\$1,203.42
0010	08/31/16	4261310MEN-24	WAP install	\$748.42	\$1,150.30
0010	09/19/16	4264310MEN-81	WAP install	\$748.42	\$1,072.68
0055	03/32/17	4285555456-001	P4 install	\$748.42	\$767.21
0055	04/12/17	4285555456-003	P4 install	\$748.42	\$942.21
0269	01/11/17	42766269MEN-504	WAP install	\$748.42	\$838.26
0269	02/17/17	42825269255-001	P4 install	\$748.42	\$1,474.91
0523	12/21/16	42735523MEN-455	WAP install	\$748.42	\$1,308.42
0523	02/17/17	42794523372-001R	P4 install	\$748.42	\$1,063.42
0528	01/18/17	429165281382-001	General	<none>	\$2,219.16
0528	02/17/17	42855528370-001	P4 install	\$748.42	\$2,219.16

On the last site (#0528), there is no explicit P4 charge for the first visit on 01/18/17. On the other hand, there is no reason why Plaintiffs should be providing general support to a site that that will not have a P4 install (according to their records) for another month, and the charge for both visits is exactly the same, down to the penny. Furthermore, the tech notes for the first visit indicate that a P4 install was being performed (“Install complete on first visit”).